

IN THE SPECIFICATION:

Please amend the specification as follows:

Delete paragraph [0148] and replace it with the following new paragraph:

[0148] This procedure is shown in the flowchart of Fig. 20. It is assumed that the single-spot projection system is first used for focusing. After the start of the focus detecting (AF) operation is instructed (Step [[S1]] S101), the projection mode is switched to the multi-spot projection system (Step [[S2]] S102). After the changeover of the projection mode is completed, the focus detecting operation is performed (Step [[S3]] S103). In the focus detecting operation, the distance between the objective lens 3 and the sample S is changed and the focus error signal is generated. In accordance with the value of the focus error signal, the in-focus or out-of-focus state is decided (Step [[S4]] S104). When the focus error signal becomes zero, it is decided that the focal position has been detected by the multi-spot projection system, and the focus detecting operation by the multi-spot projection system is completed. The procedure where the focus error signal is not zero is the same as in the fifth embodiment (Steps S108 and S109).

Delete paragraph [0149] and replace it with the following new paragraph:

[0149] After the focus detecting operation by the multi-spot projection system is completed, the projection mode is changed to the single-spot projection system (Step [[S5]] S105), and a high-precision focus detecting operation by the single-spot projection system (here, at two steps of the focus detecting operation and the decision of the in-focus or out-of-focus state) is performed (Step [[S6]] S106). When the focus error signal becomes zero, it is decided that the focal position has been detected by the single-spot projection system, and the focus detecting operation by the single-spot projection system is completed (Step [[S7]] S107).

Delete paragraph [0165] and replace them with the following new paragraph:

[0165] First, reference is made to the case where the single-spot projection system is selected. The observer pushes the AF starting switch (Step [[S1]] S201). The control section

23 reads the signal from the photosensor 41 (diffraction grating sensor) (Step [[S2]] S202) and ascertains whether the single-spot projection system is set (Step [[S3]] S203). When the signal from the photosensor 41 is "on", the single-spot projection system is set, and thus the control section 23 issues the driving signal to the ND driving section 43 to move the ND filter 42 into the path of light (Step [[S4]] S204). When the signal from the photosensor 41 is "off", the multi-spot projection system is set, and thus the control section 23 issues driving instructions for moving the diffraction grating 6 to the waiting position relative to the diffraction grating driving section 32. When the diffraction grating 6 is moved to the waiting position, the signal from the photosensor 41 becomes "on", and therefore, the control section 23, after receiving the on signal, issues the driving instructions to the ND driving section 43 to move the ND filter 42 into the path of light (Step [[S4]] S204).

Delete paragraph [0166] and replace them with the following new paragraph:

[0166] On the other hand, when the multi-spot projection system is selected, the control section 23 receives the signal from the photosensor 41 (Step [[S2]] S202) and ascertains whether the multi-spot projection system is set (Step [[S3]] S203). When the signal from the photosensor 41 is "on", the single-spot projection system is set, and thus the control section 23 issues the driving instructions for moving the diffraction grating 6 into the path of light relative to the diffraction grating driving section 32. When the diffraction grating 6 is moved into the path of light, the signal from the photosensor 41 becomes "off". The control section 23, after receiving the off signal, issues the driving instructions to the ND driving section 43 to move the ND filter 42 to the waiting position (Step [[S5]] S205). When the signal from the photosensor 41 is "off", the multi-spot projection system is already set, and hence the control section 23 issues the driving instructions to the ND driving section 43 to move the ND filter 42 to the waiting position (Step [[S5]] S205). When the preparation of a selected projection system is completed, the focus detecting operation (AF operation) is started (Step [[S6]] S206).

Delete paragraph [0167] and replace them with the following new paragraph:

[0167] Also, although in the flowchart of Fig. 23 the process from the start of the focus detecting operation to the completion of detection of the focal position is not shown,

Steps S3 and S5 in Fig. 19 are naturally followed. The seventh embodiment is designed so that after the focus detecting operation (Step [[S6]] S206) is started, the procedure capable of performing the changeover (choosing) between the single-spot projection system and the multi-spot projection system (Step [[S7]] S207) is followed. This procedure is conveniently provided in order to explain the improvement of operability. Hence, it is only necessary that this step ([[S7]] S207) is set so that it causes an interruption in the middle of the focus detecting operation or after being completed once, is performed again. The Step [[S7]] S207 need not necessarily be executed after the focus detecting operation ([[S6]] S206) is started.

Delete paragraph [0173] and replace it with the following new paragraph:

[0173] First, the observer pushes the AF starting switch 49a (Step [[S1]] S301). The control section 23 makes inquiries as to whether the single-spot projection system or the multi-spot projection system should be selected. The observer pushes the switch of a desired projection system from the projection system selecting switch unit 49b. The control section 23 detects which switch of the projection system selecting switch unit 49b is pushed (Step [[S2]] S302). The control section 23 decides whether the single-spot projection system or the multi-spot projection system has been selected and takes a further step accordingly (Step [[S3]] S303).

Delete paragraph [0174] and replace it with the following new paragraph:

[0174] Here, when the switch of the single-spot projection system is pressed, in order to set the single-spot projection system, the control section 23, as shown in Fig. 25A, removes the diffraction grating group 45 from the path of light (Step [[S4]] S304) and inserts the ND filter 46c in the path of light (Step [[S5]] S305). After that, the focus detecting operation is started (Step [[S9]] S309). Also, the transmittance of the ND filter 46c is set so that the intensity of spot light on the sample (or the photodetector 14) is substantially the same as the intensity of light in the multi-spot projection system to be described later.

Delete paragraph [0175] and replace it with the following new paragraph:

[0175] When the multi-spot projection system is selected, the control section 23 decides which switch of the switches M1, M2, ..., Mn is pressed (Step **[[S6]] S306**). If the switch M1 is pressed, as shown in Fig. 25B, the diffraction grating 45b will be inserted in the path of light (Step **[[S7]] S307**) and the ND filter 46b will be placed in the path of light (Step **[[S8]] S308**) in order to set a first multi-spot projection system. Then, the focus detecting operation is started (Step **[[S9]] S309**). Also, the transmittance of the ND filter 46b is set so that the sum of the intensities of spot light on the sample is substantially the same as the intensity of spot light preset in the single-spot projection system.

Delete paragraph [0176] and replace it with the following new paragraph:

[0176] If the switch M2 is pressed, as shown in Fig. 25C, the diffraction grating 45a will be inserted in the path of light (Step **[[S7']] S307'**) and the ND filter 46a will be placed in the path of light (Step **[[S8']] S308'**) in order to set a second multi-spot projection system. Then, the focus detecting operation is started (Step **[[S9]] S309**). Also, the transmittance of the ND filter 46b is set so that the sum of the intensities of spot light on the sample is substantially the same as the intensity of spot light preset in the single-spot projection system and is also substantially the same as the sum of the intensities of light in the first multi-spot projection system.

Delete paragraph [0179] and replace it with the following new paragraph:

[0179] In the eighth embodiment, like the seventh embodiment, a step (**[[S10]] S310**) is provided so that, in the middle of the focus detecting operation or after the completion thereof, the changeover between the single-spot projection system and the multi-spot projection system or between the projection patterns in the multi-spot projection system can be carried out. Whereby, the improvement of operability can be expected.

Delete paragraph [0186] and replace it with the following new paragraph:

[0186] First, the observer pushes the AF starting switch 49a (Step **[[S1]] S401**). The control section 23 makes inquiries as to whether the single-spot projection system or the multi-spot projection system should be selected. The observer pushes the switch of a desired projection system from the projection system selecting switch unit 49b. The control section 23 detects which switch of the projection system selecting switch unit 49b is pushed (Step **[[S2]] S402**). The control section 23 decides whether the single-spot projection system or the multi-spot projection system has been selected and takes a further step accordingly (Step **[[S3]] S403**).

Delete paragraph [0187] and replace it with the following new paragraph:

[0187] When the switch of the single-spot projection system is pushed, the diffraction grating group 45 is removed from the path of light (Step **[[S4]] S404**) and at the same time, the driving current supplied to the light source 50 is set to a predetermined value a (Step **[[S5]] S405**). After that, the focus detecting operation is started (Step **[[S9]] S409**). Also, the driving current a supplied to the light source 50 is set so that the intensity of spot light on the sample (or the photodetector 14) is substantially the same as the intensity of light in the multi-spot projection system to be described later.

Delete paragraph [0188] and replace it with the following new paragraph:

[0188] When the multi-spot projection system is selected, the control section 23 decides which switch of the switches M1, M2, ..., Mn is pressed (Step **[[S6]] S406**). If the switch M1 is pressed, the diffraction grating 45b will be inserted in the path of light (Step **[[S7]] S407**) and the driving current supplied to the light source 50 will be set to a predetermined value b (Step **[[S8]] S408**). Then, the focus detecting operation is started (Step **[[S9]] S409**). The driving current b supplied to the light source 50 is set so that the sum of the intensities of spot light on the sample is substantially the same as a preset intensity of spot light in the single-spot projection system.

Delete paragraph [0189] and replace it with the following new paragraph:

[0189] If the switch M2 is pressed, the diffraction grating 45c will be inserted in the path of light (Step [[S7']] S407') and the driving current supplied to the light source 50 will be set to a predetermined value c (Step [[S8']] S408'). Then, the focus detecting operation is started (Step [[S9]] S409). The driving current b supplies to the light source 50 is set to practically correspond to the intensity of spot light in the single-spot projection system and also to the sum of the intensities of light in the first multi-spot projection system.

Delete paragraph [0191] and replace it with the following new paragraph:

[0191] In the ninth embodiment, like the seventh embodiment, a step ([[S10]] S410) is provided so that, in the middle of the focus detecting operation or after the completion thereof, the changeover between the single-spot projection system and the multi-spot projection system or between the projection patterns in the multi-spot projection system can be carried out. Whereby, the improvement of operability can be expected.

Delete paragraph [0198] and replace them with the following new paragraph:

[0198] First, the observer pushes the AF starting switch 49a (Step [[S1]] S501). The control section 23 makes inquiries as to whether the single-spot projection system or the multi-spot projection system should be selected. The observer pushes the switch of a desired projection system from the projection system selecting switch unit 49b. The control section 23 detects which switch of the projection system selecting switch unit 49b is pushed (Step [[S2]] S502). The control section 23 decides whether the single-spot projection system or the multi-spot projection system has been selected and takes a further step accordingly (Step [[S3]] S503).

Delete paragraph [0199] and replace them with the following new paragraph:

[0199] When the switch of the single-spot projection system is pushed, the diffraction grating group 45 is removed from the path of light (Step [[S4]] S504). An output signal X from the photodetector 52 is input in the control section 23 (Step [[S7]] S507). Where the

output signal X is different from a preset reference value Y, processing for changing the driving current little by little (what is called feedback processing) is executed so that the output signal X coincides with the reference value Y. Here, in the tenth embodiment, to reach the reference value Y as fast as possible, the relationship between the driving current supplied to the light source 50 and the output signal of the photodetector 52 relative to the driving current is previously measured in a state where the diffraction grating is not placed in the path of light so that a new driving current Z is calculated from the difference between the output signal X and the reference value Y in accordance with a function obtained from the result of measurement (Step [[S8]] S508).

Delete paragraph [0200] and replace them with the following new paragraph:

[0200] When the new driving current Z is calculated, instructions for reducing the driving current to zero are issued to the laser driving section 51 (Step [[S9]] S509). If the output signal from the photodetector 52 in the case of the driving current Z fails to coincide with the reference value Y, the fine adjustment of the driving current is made through the feedback processing mentioned above. After that, the focus detecting operation is started (Step [[S10]] S510). Also, the reference value Y is set so that the intensity of spot light on the sample (or the photodetector 14) is nearly the same as the intensity of light in the multi-spot projection system to be described later.

Delete paragraph [0201] and replace them with the following new paragraph:

[0201] When the multi-spot projection system is selected, the control section 23 decides which switch of the switches M1, M2, ..., Mn is pressed (Step [[S5]] S505). If the switch M1 is pressed, the diffraction grating 45b (a diffraction grating A in the flowchart) will be inserted in the path of light (Step [[S6]] S506). The output signal from the photodetector 52 is read by the control section 23 (Step [[S7]] S507). Where the output signal X is different from the preset reference value Y, a new driving current Z' corresponding to the reference value Y, as in the single-spot projection system, is calculated in accordance with a function (Step [[S8]] S508), and the fine adjustment of the driving current is made as occasion demands. Also, this function refers to a function obtained from

the result of measurement in a state where the diffraction grating 45b is placed in the path of light.

Delete paragraph [0202] and replace them with the following new paragraph:

[0202] If the switch M2 is pressed, the diffraction grating 45a (a diffraction grating B in the flowchart) will be inserted in the path of light (Step ~~[[S6']]~~ S506'). Subsequent steps are the same as in the where the diffraction grating 45b is inserted in the path of light.

Delete paragraph [0203] and replace them with the following new paragraph:

[0203] In the tenth embodiment, like the seventh embodiment, a step (~~[[S11]]~~ S511) is provided so that, in the middle of the focus detecting operation or after the completion thereof, the changeover between the single-spot projection system and the multi-spot projection system or between the projection patterns in the multi-spot projection system can be carried out. Whereby, the improvement of operability can be expected.

Delete paragraph [0263] and replace it with the following new paragraph:

[0263] In the focus detecting device according to the twenty-third embodiment, the light source 4, ~~and the collimator lens 5, and the stop, which intercepts the light,~~ are decentered as shown in Fig. 51, to function instead of the light-intercepting plate 7 of Fig. 7. That is, by decentration, rays from the light source 4 fail to be incident on the beam splitter 8 as spreading over the entire region of the beam-splitting surface thereof, but are incident on the half the region of the surface.